

WHAT IS CLAIMED IS:

1. A method for controlling a wrapping machine for printed products comprising the steps of:
determining a size of an incoming gap in a printed product stream; and
controlling a speed of the wrapping machine as a function of the size of the incoming gap,
the controlling step including intentionally leaving, in the printed product stream in the wrapper machine, at least a single product gap corresponding to the incoming gap so as to create at least one empty bag.
2. The method as recited in claim 1 wherein the size of the incoming gap exceeds a predetermined size, the controlling step includes reducing the size of the incoming gap.
3. The method as recited in claim 1 wherein if the size of the incoming gap is a single product, the speed of the wrapping machine remains the same and a single empty bag is produced.
4. The method as recited in claim 1 wherein if the size of the incoming gap is two products and the wrapping machine is controlled to create a single empty bag in response to an incoming gap, the wrapping machine is decelerated to an intermediate speed and then accelerated to the incoming product stream speed.
5. The method as recited in claim 1 wherein if the size of the incoming gap is three products or more and the wrapping machine is controlled to create one empty bag in response to an incoming gap, the wrapping machine is decelerated to a stop in more than one pin conveyor cycle.
6. The method as recited in claim 5 wherein the wrapping machine is accelerated to the incoming product stream speed in more than one pin conveyor cycle.
7. The method as recited in claim 1 wherein the wrapping machine creates one empty bag corresponding to the incoming gap.

8. The method as recited in claim 1 wherein the wrapping machine creates two or more empty bags corresponding to the incoming gap.

9. A method for controlling a wrapping machine for printed products comprising the steps of:
determining a size of an incoming gap in a printed product stream having a first speed;
and

controlling a speed of the wrapping machine as a function of the size of the incoming gap,
the controlling step including in certain modes decelerating the wrapping machine from the first speed over more than a full printed product stream cycle so as to reduce the size of the incoming gap.

10. The method as recited in claim 9 further comprising accelerating the wrapping machine to the first speed.

11. The method as recited in claim 9 wherein the size of the incoming gap is reduced in the wrapping machine to the size of exactly one printed product.

12. The method as recited in claim 9 wherein the wrapping machine is decelerated to a full stop when the size of the incoming gap is three printed products or more.

13. The method as recited in claim 9 wherein the wrapping machine is decelerated to a certain speed when the size of the gap is two printed products.

14. A method for controlling a wrapping machine for printed products comprising the steps of:
determining a size of an incoming gap in a printed product stream; and
controlling the speed of the wrapping machine as a function of the size of the incoming gap in certain modes so as to reduce the incoming gap in the wrapping machine while still creating at least one empty bag in the wrapping machine.

15. A controller for controlling a wrapping machine for printed products, the controller

comprising:

- a first input for determining a speed of a printed product stream entering a wrapping machine,

- a second input for determining a size of a gap in the printed product stream, and

- an output for controlling a speed of the wrapping machine, the controller controlling the speed of the wrapping machine as a function of the size of the incoming gap in certain modes so as to reduce the incoming gap in the wrapping machine while still creating at least one empty bag in the wrapping machine.

16. The controller as recited in claim 15 wherein the controller controls the speed of the wrapping machine as a function of the speed of the printed product stream.

17. A newspaper finishing machine comprising:

- a conveyor for conveying newspapers at a first speed; and

- a wrapping machine for wrapping the newspapers and capable of being driven at a different speed than the conveyor,

- at least one sensor for determining a size of a gap in the printed product stream entering the wrapping machine, and

- a controller for controlling a speed of the wrapping machine, the controller reducing the size of the gap, the controller controlling the speed of the wrapping machine as a function of the size of the incoming gap in at least some modes so as to reduce the incoming gap in the wrapping machine while still creating at least one empty bag in the wrapping machine.